

Application Serial No.: 09/344,526
Filing Date: June 24, 1999

REMARKS

Prior to this amendment, claims 16-20 and 45, 46, 52, 53, 55 and 58-65 were pending. Claims 16-20 are allowed. Applicants appreciate the Examiner's notification of the allowability of these claims. As submitted herein, claims 45, 52, 53, 55, 58-60 and 64-65 are amended. Claims 66-74 are new. Support for the amendment of claims 45, 52, 53, 55 and 58 is found throughout the specification and at least at p. 6, line 22, and p. 26, line 16 of the application as filed. Claims 53 and 59 are amended to incorporate the limitations of the claims from which they previously depended. Claims 60 and 64 are amended to change dependency. Claim 65 is amended to delete reference to canceled claims. Support for new claims 66 and 68 is found throughout the specification and at least at p. 17, lines 16-18 and 34-36, and p. 18, lines 11-13. Support for new claims 67 and 69-73 is found throughout the specification and at least at p. 14, line 28 to p. 15, line 17, and p. 24, line 27 to p. 25, line 2 and lines 25-32. Support for new claim 74 is found throughout the specification and at least at p. 7, line 34-37. Applicants submit that no new matter is introduced by way of these amendments.

Interview

Applicants appreciate the Examiner's helpful telephone interview with Applicants' representative on August 27, 2004. In the interview the Examiner and Applicants' representative discussed the cited reference (Walt, USPN 6,023,540). In particular, they discussed Figure 3 of Walt and column 13 of Walt and differences between those disclosures and the present invention. Applicants' representative and the Examiner discussed claim language that distinguishes the present invention from these sections of Walt. Applicants believe the amended claims presented herein are directed to subject matter that was agreed upon during the interview.

Rejection under 35 U.S.C. § 112, second paragraph

Claim 65 is rejected under 35 U.S.C. § 112, second paragraph because it depended from canceled claims 56 and 57. In response, Applicants have amended claim 65 so that it no longer depends from these rejected claims. Applicants respectfully request the Examiner to withdraw this rejection.

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Obviousness-Type Double Patenting Rejection

Claims 45, 46, 52, 53, 55 and 58-65 stand provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 27-39 of co-pending Application No. 09/748,706 in view of Walt *et al.* (Patent No. 6,023,540).

In response, Applicants submit that a Terminal Disclaimer was filed on February 19, 2004, thereby obviating this rejection. For the Examiner's convenience, a copy of this Terminal Disclaimer is submitted herewith. Accordingly, Applicants respectfully request withdrawal of the double patenting rejection based on co-pending Application No. 09/748,706.

Rejection under 35 U.S.C. § 103

Claims 45, 46, 52, 53, 55, 59-62, 64 and 65 are rejected under 35 U.S.C. § 103 as being unpatentable over Walt *et al.* (USPN 6,023,540). The Examiner's position is that Walt teaches arrays as currently claimed and methods of decoding and detecting target analytes as claimed. The Examiner suggests that it would have been obvious to one of ordinary skill in the art to decode the bead locations with different bioactive agents to result in the practice listed in the instant claims. Applicants respectfully traverse. In addition, Applicants again thank the Examiner for the helpful teleconference noted above that clarified the outstanding issues with respect to this rejection.

As the Examiner is aware, there are three requirements to establish a *prima facie* case of obviousness. These include that "there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations" (MPEP § 2143).

With respect to claims 45, 52, 55 and 58, as discussed with the Examiner, the claims as amended are not obvious in light of the Walt disclosure. As amended, the claims are directed to methods that include, *inter alia*, contacting the array with a pool comprising at least first and second different decoder binding ligands. As discussed in the interview, the disclosure at column 13 of Walt regarding Enzyme Sensors describes identification of the location of bioactive agents only if the fluorescein labeled enzyme substrates are contacted with the array one substrate at a time. Absent a teaching or suggestion of contacting the enzyme sensors with a pool of first and second different fluorescein labeled enzyme substrates, the Walt disclosure does not teach or suggest all of the claim elements. Therefore, the claims

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are not obvious over Walt. As such, Applicants respectfully request the Examiner to withdraw the rejection.

With respect to claims 53 and 59, Applicants submit that the claims also are not obvious over the Walt disclosure because the claims are directed to methods that include, *inter alia*, providing an array wherein the microspheres comprise a different bioactive agent and a different identifier binding ligand and decoding comprises contacting the array with at least first and second decoder binding ligands, whereby the first and second decoder binding ligands bind to a first and second identifier binding ligand, whereby the first and second identifier binding ligand identifies the first and second bioactive agent, respectively, to thereby identify a location of the first and second bioactive agents to decode the array. As discussed in the interview, such a method is distinguishable from the disclosure of Walt that was discussed because even if Walt taught a method that included microspheres comprising a different bioactive agent and a different identifier binding ligand there was no teaching or suggestion in Walt of contacting beads with such components with a population of decoder binding ligands as presently claimed. As such, the claims are not obvious over Walt.

The remaining claims depend from the above amended claims. As such, they too are not obvious in light of Walt. Applicants respectfully request the Examiner to withdraw the rejection.

Claims 45, 46, 52, 53, 55 and 59-65 are rejected under 35 U.S.C. § 103 as being unpatentable over Walt (6,023,540) taken in view of Barndad et al. (6,197,515).

Walt is discussed above.

Barndad is directed to a biosensor that includes molecules adhered to a surface as part of a self-assembled monolayer. Methods include bringing the sensor in contact with medium containing or suspected of containing target biological molecules and allowing the biological molecule to bind the binding partner. *See abstract.*

The Examiner cites to Barndad for the proposition that Barndad suggests and describes biochemical analyses that can be interpreted as using bioactive agents and that Barndad uses single and double stranded nucleic acids. Thus, the Examiner suggests that Barndad suggests and motivates either single or double stranded nucleic acid bioactive or binding partners rendering the claims obvious. Applicants respectfully traverse.

The requirements to establish a *prima facie* case of obviousness are set forth above.

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Here, initially, Applicants note that the present claims are not obvious in light of Walt for the reasons set forth above, namely that the present claims involve decoding methods that are distinguishable from Walt. Applicants submit that Bamdad does not cure the deficiencies of Walt because Bamdad also does not teach such decoding methods. Accordingly, Applicants submit that all claim elements are not disclosed in the references taken alone or in combination. As such, Applicants respectfully request the Examiner to withdraw the rejection.

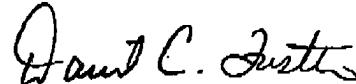
CONCLUSION

Applicants submit that the claims are now in form for allowance. Applicants earnestly request an early indication of such allowance. If there are any further issues that the Examiner wishes to discuss, he is invited to direct any further questions in connection with this Application to the undersigned at (415) 781-1989.

Respectfully submitted,

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